

yumeng ma

HUMAN-COMPUTER INTERACTION (HCI) · HUMAN-AI INTERACTION · ACCESSIBILITY · VISUAL & SOCIAL COMPUTING

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Education

University of Washington

Seattle, WA

PHD IN COMPUTER SCIENCE AND ENGINEERING (HCI)

2024 - Present

Advisor: Jacob O. Wobbrock

Brown University

Providence, RI

SC.M IN COMPUTER SCIENCE

2022 - 2024

GPA: 4.0 / 4.0

Advisor: Jeff Huang

Arizona State University

Tempe, AZ

B.S. IN COMPUTER SCIENCE AND PSYCHOLOGY

2019 - 2022

Barrett Honors College

GPA: 4.0 / 4.0 Summa Cum Laude

Thesis: "Assessing Exhibit Interaction through Bridging the Connections Between Biometrics and Traditional Tools"

Publications

* *equal contribution*

CONFERENCE PROCEEDINGS

Zainab Iftikhar, **Yumeng Ma**, and Jeff Huang. 2023. "Together but not together": Evaluating Typing Indicators for Interaction-Rich Communication. In Proceedings of the 2023 Conference on Human Factors in Computing Systems (CHI '23). *Paper*

Ian Gonsher, **Yumeng Ma**, Ivan Pineda-Dominguez, Matthew Lee, and Yuxin. 2023. The Mixed Reality Passthrough Window: Rethinking the Laptop Videoconferencing Experience. Human Interaction and Emerging Technologies (IHET-AI 2023): Artificial Intelligence and Future Applications. *Paper*

SHORT PAPERS & EXTENDED ABSTRACTS

Yumeng Ma* and Jiahao Ren*. 2023. ProactiveAgent: Personalized Context-Aware Reminder System. In The 36th Annual ACM Symposium on User Interface Software and Technology (UIST '23 Adjunct). *Paper*

Research Experience

UW ACE Lab

Seattle, WA

GRADUATE RESEARCH ASSISTANT, ADVISED BY PROF. JACOB WOB BROCK

2024 - Present

- Currently collaborating with Microsoft on benchmarking AI-generated code to identify accessibility gaps and improve its reliability for inclusive web development.

Brown Department of Neuroscience

Providence, RI

COMPUTER VISION RESEARCH ASSISTANT, ADVISED BY PROF. MICHAEL PARADISO

2023 - 2024

- Built a visual prosthesis system for blind and low vision users to locate everyday objects and identify surrounding text.

UCLA HCI Lab

Los Angeles, CA

HCI RESEARCH INTERN, ADVISED BY PROF. XIANG 'ANTHONY' CHEN

2023

- Led the development of a proactive reminder system that takes in user context, history, and spoken interactions by leveraging LLMs and personal agents.

Brown Department of Engineering

Providence, RI

DESIGN RESEARCH ASSISTANT, ADVISED BY PROF. IAN GONSHER

2022 - 2023

- Introduced a new paradigm for the integration of AR into laptop and desktop displays to enable local users to interact more easily and seamlessly with remote users during videoconferencing sessions.

Brown HCI Lab

Providence, RI

DISTRIBUTED RESEARCH EXPERIENCES FOR UNDERGRADUATES, ADVISED BY PROF. JEFF HUANG

2022

- Designed novel typing indicators and found that they enhance user co-presence in written communication through mixed method analysis.

ASU SoLET Lab

Tempe, AZ

PSYCHOLOGY RESEARCH ASSISTANT, ADVISED BY DR. DANIELLE MCNAMARA

2022

- Conducted testing and evaluation of tutoring systems to optimize learning and educational practices for underrepresented groups.

NASA Psyche Mission

Tempe, AZ

HCI RESEARCH ASSISTANT, ADVISED BY PROF. MARIA ELENA CHAVEZ ECHEAGARAY

2021-2022

- Developed a web app that allows users to interact with the Psyche Spacecraft model and led user studies with biometric data analysis that showed the app increased public engagement.

Work Experience

Infosys

RESEARCH INTERN, APPLIED RESEARCH CENTER FOR AUTONOMOUS MACHINES TEAM

2025

- Conducted design research on autonomous vehicle interfaces and created graceful degradation strategies using multimodal hazard escalation storyboards and user studies.

Infosys

UX DESIGN INTERN, LIVING LABS TEAM

2024

- Spearheaded the design of an accessible phygital UI that integrate emerging AI trends to optimize retail experiences for diverse user personas.

Brown + NASA

Providence, RI

MOBILE DEVELOPER

2023 - 2024

- Led and developed a sound and haptic-enabled cross-platform mobile app to help blind and low vision individuals explore and learn about space.

Civilience

PROJECT MANAGEMENT & UX DESIGN INTERN | LIAISON BETWEEN FRONTEND AND UI/UX

2023

- Led the UI/UX team to design a web-based app with interactive health data visualizations and built reusable components for a consistent design system across the product

Awards, Fellowships, & Grants

2025 **Microsoft Grant**, Microsoft

2024 **NSF Graduate Research Fellowship**, NSF

2024 **Paul G. Allen School Fellowship**, University of Washington

2019 - 2023 **Microsoft DisAbility Scholarship**, Microsoft

2022 **Google CS Research Mentorship Program Fellowship**, Google

Teaching

Spring '22 **CSE 365 Information Assurance**, TA for Adam Doupe and Tiffany Bao, ASU

Extracurricular & Work Activities ---

2021 - Present	Member , AccessComputing	
2022 - 2024	Master's Representative , Brown University CS Diversity Committee	<i>Providence, RI</i>
2023	Student Volunteer , UIST	<i>San Francisco, CA</i>
2020 - 2021	Microsoft Support / Xbox Advocate Contract , Microsoft	<i>Tempe, AZ</i>